

HANDEDNESS, ASYMMETRY, AND FLATTENING

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#128

In table 4 we saw that over a third of our series had asymmetrical heads; that is a high ratio. Facial asymmetry, on the other hand, was negligible. With an abnormal amount of cranial asymmetry, and the indication that much if not all of the flattening might also be abnormal, it seems worth while to explore the possibility that these 2 features are associated. First, however, it must be explained how we judged which side the asymmetry was on. An asymmetrical skull bulges to one side or the other. When a skull bulged to the left, we called it left cranial asymmetry, and the converse. When the skull was both asymmetrical and flattened, the plane of flattening pointed to the opposite side from that designated.

TABLE 25: HANDEDNESS, ASYMMETRY, AND
FLATTENING.

OCCIPITAL		
ASYMMETRY	ABS.	PRES.
ABS.	549	188
PRES.	131	199
$Q = +.63$		
LAMBDOID		
ASYMMETRY	ABS.	PRES.
ABS.	387	210
PRES.	293	177
$Q = +.06$		
OCCIPITAL FLATTENING ABSENT		
CRANIAL ASYMMETRY	HANDEDNESS	
	L	R
L	7	47
R	5	127
$Q = +.58$		
OCCIPITAL FLATTENING PRESENT		
	HANDEDNESS	
	L	R
L	12	45
R	2	138
$Q = +.89$		

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Table 25 shows a definite tendency for men with occipital flattening to have cranial asymmetry as well; a little more than half the occipitally flattened heads are also asymmetrical. Men with lambdoid flattening may or may not have cranial asymmetry; in their case the association is a chance one. This seems

1[See cat. 116, p. 64 m -- Analysis]
2[See Cat 116, p. 94a -- Analysis]

304 logical enough if flattening is caused by
 145 cradling. A baby lying on his back might
 *128 strain to turn to one side, and if he habitually
 chose the same side, that side might be expected to bear the bulk of the flattening. On the other hand if the top of his head were pressed against the headboard, which side he turned to would make little difference.

The way to test this second theory is to see whether or not occipital flattening and handedness are associated. The frequencies for handedness are given on table 4. We tested for handedness by seeing which hand the man put out to take the dynamometer, and if he seemed to hesitate, by asking him to throw a stone. A total figure of 7 per cent for left handedness seems reasonable for a country where almost no one is literate, and where the only compunctions about which hand to use lie in the field of eating and its ultimate result.

Table 25² also shows that handedness is associated with cranial asymmetry in any case; in the men who were not occipitally flattened, it reached a Q of + .58, but in those who were so flattened, it attained the nearly complete association of + .89. What this seems to mean is that the babies who were right handed had a tendency to roll over on the left to free their right arms, and to look with their right eyes, etc., while the babies who were left handed had a tendency to do the opposite. It would be very strange if these movements would distort the skull, or be associated with such distortion, without benefit of cradle.

THE BOSTON EVIDENCE

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The best kind of evidence, of course, is experimental. Although it was impossible to experiment with the Ghegs, a full-dress experiment of exactly the kind we need was conducted unwittingly for us by a group of several thousand Tosks. Shortly before World War I a whole village, Katundi, pulled up stakes and moved to America. Most of them settled in the neighborhood of Boston, where they were joined by others from neighboring villages. The anthropological problems presented by this migration have yet to be studied as a whole, and their investigation should yield much profit in years to come. For the moment a slight beginning may be made, which will serve the purposes of the present report.

1/2 [see cat. n6, p. 54m
 -- Analysis]

2 [see cat. n6, p. 94a
 -- Analysis]

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